

APPENDIX A - GLOSSARY

Access Road: A temporary or permanent access route for vehicles into forest land.

Alignment: The horizontal route or direction of an access road. It is made up of straight line tangent sections and curves.

Angle of Repose: The maximum slope or angle at which a material such as soil or loose rock remains stable.

Barriers: Obstructions to pedestrian, horse, or vehicular traffic. They are intended to restrict such traffic to a specific location.

Basal Area: The area of the cross section of a tree trunk near its base, usually 4½ feet above the ground. Basal area is a way to measure how much of a site is occupied by trees. The term basal area is often used to describe the collective basal area of trees per acre.

Berm: A low earth fill constructed in the path of flowing water to divert its direction, or constructed to act as a counter-weight beside the road fill to reduce the risk of foundation failure.

Best Management Practices (BMPs): This phrase and acronym are taking on new meanings, and the context of its use must be assessed for its meaning. Traditionally, the term referred to a practice or combination of practices that were deemed the most effective, practicable (including technological, economical and institutional considerations) means of preventing or reducing the amount of water pollution generated by nonpoint sources. Specifically, the term was used with respect to surface water and practices for complying with the Federal Clean Water Act. “Water Quality BMPs” is the phrase often used for this connotation. Increasingly, however, the term “BMPs” is used in a broader sense and encompasses subjects beyond surface water quality, such as soils, visual management, and other timber management practices.

Bog: A nutrient-poor peatland community characterized by acidic, saturated peat and the prevalence of sphagnum mosses and low shrubs, such as leatherleaf, and insectivorous plants. High quality bogs are often occupied by rare plants and animals.

Borrow Pit: That area from which soil is removed to build up the road bed, sometimes directly adjacent and parallel to a road.

Broad-based Dip: A surface drainage structure specifically designed to drain water from a permanent road, while allowing vehicles to maintain normal travel speeds.

Buffer Strip: An area of land adjacent to a water body which acts to trap and filter out suspended sediments, nutrients, and chemicals before reaching surface waters. Harvesting and other forest management activities are permitted in the strip, as long as the functional integrity of the strip is maintained. Shade from the strip may also reduce thermal pollution of an adjacent stream. Referred to in this manual as Riparian Management Zone (RMZ).

Check Dam: A small dam constructed of rocks and placed in roadside ditches, ruts, gullies or other areas of channelized flow. The purpose of check dams is to interrupt the movement of channelized flows, decrease the flow velocities, and promote deposition of sediment at regular intervals.

Corduroy: Logs placed over a swamp to reinforce the natural root mat for the purpose of minimizing the risk of settlement or foundation failure of a temporary road.

Culvert: A conduit through which surface water can flow under roads.

Cut-and-Fill: Process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

Dips: Economical, relatively trouble-free structures for providing effective drainage of wood roads. Dips are considerably lower in cost than culverts, so time spent in careful construction is well-justified.

Disking: A site preparation system whereby a heavy cultivating implement with large disks is pulled over a site in order to eliminate competing vegetation.

Diversion Ditch: A channel with a supporting ridge on the lower side constructed across a slope for the purpose of intercepting surface runoff.

Drain: The legal definition of a “drain” or “drainageway” is part of **THE DRAIN CODE OF 1956 (EXCERPT) Act 40 of 1956. Section 280.3: Drain; definition. Subsection 3. It reads as follows:** The word “drain”, whenever used in this act, shall include the main stream or trunk and all tributaries or branches of any creek or river, any watercourse or ditch, either open or closed, any covered drain, any sanitary or any combined sanitary and storm sewer or storm sewer or conduit composed of tile, brick, concrete, or other material, any structures or mechanical devices, that will properly purify the flow of such drains, any pumping equipment necessary to assist or relieve the flow of such drains and any levee, dike, barrier, or a combination of any or all of same constructed, or proposed to be constructed, for the purpose of drainage or for the purification of the flow of such drains, but shall not include any dam and flowage rights used in connection therewith which is used for the generation of power by a public utility subject to regulation by the public service commission.

Ephemeral Draw Area: A topographic feature that during rain events or snow melt, acts as a small drainage area and channels overland flows into a stream. These features do not have a defined bed or bank or a defined continuous channel and have an intact forest floor. In areas with terrain, this is a topographic feature that is the lowpoint in which two ridges or mounds of earth come together. They are a natural drainage path for surface water runoff and channel water flow into first order streams. Skidding up or down these features should be avoided.

Ephemeral stream: A stream that flows only during and for short periods following precipitation and flows in low areas that may or may not have a well-defined channel.

Energy Dissipaters: Materials or structures, placed at the discharge end of a culvert or ditch, which interrupt and spread the flow of water, thus reducing the water's power to cause erosion. Rock or heavy slash are examples of energy dissipaters.

Erosion: The process by which soil particles are detached and transported by water, wind, and gravity to some down slope or downstream point.

Felling: The process of severing trees from stumps.

Fen: A type of groundwater-fed wetland. It is a peatland community dominated by sedges, rushes, and grasses that occurs on moderately alkaline organic soil and marl. Fens occur where cold, calcareous groundwater rich in calcium and magnesium carbonates reaches the surface to form perennial springs and seeps. The flow rate and volume of groundwater passing through a fen strongly influence vegetation patterning.

Filter Strip: See riparian management zone.

Fireline: A barrier used to stop the spread of fire constructed by removing fuel or rendering fuel inflammable by use of water or fire retardants.

Forest Floor: Organic matter on top of the mineral soil surface in the forest, including litter and unincorporated humus.

Grade: The slope of a road or trail expressed as a percent of change in elevation per unit of distance traveled.

Groundwater: The subsurface water supply in the saturated zone below the level of the water table.

Gully: A form of soil erosion which is a channel in the soil, caused by storm runoff, usually more than 6 inches deep and 6 inches wide.

Harvesting: The felling, loading, and transportation of forest products.

Integrated Pest Management (IPM): An ecological approach to pest management in which all available necessary techniques are consolidated into a unified program so that pest populations can be managed in such a manner that economic damage is avoided and adverse side effects are minimized.

Intermittent stream: A stream that flows only during wet periods of the year and flows in a continuous well-defined channel with definable beds and banks.

Loading: The act of placing material on a vehicle for further transport.

Mulching: Providing any loose covering for exposed forest soil, using organic residues, such as grass, straw or wood fibers to protect exposed soil and help control erosion.

Nonpoint Source Pollution: Pollution caused when rain, snowmelt, or wind carry pollutants off the land and into lakes, streams, wetlands, and other water bodies. Hydrologic alterations and atmospheric deposition are also considered nonpoint source pollutants.

Nutrients: Mineral elements in the forest ecosystem, such as nitrogen, phosphorus, or potassium, that are naturally present or may be added to the forest environment by forest practices such as fertilizer or fire-retardant applications. Substances necessary for the growth and reproduction of organisms. In water, those substances that promote growth of algae and bacteria; chiefly nitrates and phosphates.

Ordinary High Water Mark: An elevation which marks the boundary of the lake, marsh or stream bed. It is the highest level at which the water has remained long enough to leave its mark upon the landscape. Generally, it is the point where the natural vegetation changes from predominately aquatic to predominately terrestrial.

Pesticides: Chemical compounds or biological agents used for the control of undesirable plants, animals, insects or diseases.

Prescribed Burning: Skillful application of fire to natural fuels that will allow confinement of the fire to a predetermined area and at the same time will produce certain planned benefits.

Rake: A site preparation tool normally mounted on the front of a crawler tractor, used to remove trees, stumps, roots and slash from a future planting site.

Riparian Management Zone (RMZ): An area of land adjacent to a water body which acts to trap and filter out suspended sediments, nutrients, and chemicals before reaching surface waters. Harvesting and other forest management activities are permitted in the strip, as long as the functional integrity of the strip is maintained. Shade from the RMZ may also reduce thermal pollution of an adjacent stream.

Riprap: A layer of boulders or rock fragments placed over soil to protect it from the erosive forces of flowing water.

Runoff: In forest areas, that portion of precipitation that flows from a drainage area on the land surface or in open channels.

Rut: A depression in the soils of the forest floor or depressions in dirt roads or skid trails made from the passage of vehicles or logging equipment.

Scarification: The process of removing the forest floor or mixing it with the mineral soil by mechanical action preparatory to natural or direct seeding or the planting of tree seedlings.

Sediment: The legal definition of sediment is defined in Part 91, Soil Erosion and Sedimentation Control, Natural Resources and Environmental Protection Act, 1994, Public Act 451, As Amended, in section 324.9101, Definitions; A to W, subsection 9101, subpart (14). It reads as follows: "Sediment" means solid particulate matter, including both mineral and organic matter, that is in suspension in water, in being transported, or has been removed from its site of origin by the actions of wind, water, or gravity and has been deposited elsewhere.

Seep (also called a spring seep or spring): A permanent or intermittent discharge of water that emerges from the ground and flows across the soil surface without defined bed and banks. The limits of the seep are demarked by the extent of surface water, water-stained leaves, or other signs of hydrology (e.g. oxidized root channels).

Severe Erosion Hazard: A rating in the classification of soils indicating the relative risk of soil loss in well-managed forest land. A severe rating indicates the need for intensive management, or special equipment and methods to prevent excessive soil loss.

Silt Fence: A fabric made of geotextile and installed to prevent the off-site movement of sediment transported by overland flows.

Site Preparation: A forest activity to remove unwanted vegetation and other material, and to cultivate or prepare the soil for reforestation.

Skidding: The act of moving trees from the site of felling to a loading area or landing. Skidding may be accomplished by tractors, horses, or specialized logging equipment.

Skid Trails: A temporary pathway over forest soil to drag felled trees or logs to a landing.

Slash: Unwanted, unutilized, and generally unmarketable accumulation of woody material in the forest such as limbs, tops, cull logs, and stumps that remain as forest residue after timber harvesting. May be useful as material to deposit on skid trails to slow water movement and erosion.

Stream: The legal definition of a stream is defined in Part 301, Inland Lakes and Streams, Natural Resources and Environmental Protection Act, PA 451, 1994, as amended, in Section 324.30101, Definitions. subsection (h) of Part 301. It reads as follows: "a river or stream or creek which may or may not be serving as a drain as defined by the drain code of 1956, PA 40

MCL 280.9 to 280.630 or any other body of water that has definite banks, a bed and visible evidence of a continued flow or continued occurrence of water.....”

Trout stream: Any stream or portion of a stream that contains a significant population of any species of trout or salmon, as determined by the DNR. The DNR shall designate not more than 212 miles of trout streams in which only lures or baits as the DNR prescribes may be used in fishing, and the DNR may prescribe the size and number of fish that may be taken from those trout streams. (Per Act 451, MCL Section 324.48701).

Turnout: A widened space in a road to allow vehicles to pass one another and which slopes away (downhill) from the road. Also, a drainage ditch which drains water away from roads.

Vernal pool: A small (usually less than an acre), shallow, temporary body of water in a depression that lacks a perennial inlet or outlet stream and has no permanent fish population. It will appear after snow melt and gradually dry up as the summer progresses. They may be vegetated or non-vegetated bodies of water during the wettest seasons of the year, while in dry seasons, they may only be recognizable as an isolated depression on the forest floor. They provide critical habitat for breeding amphibians and are also important for certain invertebrates and plants. Bears coming out of hibernation also rely on vernal pools as a food source during the spring.

Water Bar: A ditch and trench across a trail or road tied into the uphill side for the purpose of carrying water runoff into the vegetation, duff, ditch, or dispersion area so that water runoff does not gain the volume and velocity which causes soil movement and erosion. Properly installed man-made materials, such as conveyor belts, may also be used as water bars.

Water Pollution: Any introduction of foreign material into water or other impingement upon water which produces undesirable changes in the physical, biological, or chemical characteristics of that water.

Watershed: The surrounding land area that drains into a lake, river or river system.

Waters of the State: Any surface or underground waters, except those surface waters which are not confined, but are spread and diffused over the land. This includes all lakes, ponds, wetlands, rivers, streams, ditches, springs, and waters from underground aquifers, regardless of their size or location.

Wetlands: Geographic areas characteristically supporting wetlands vegetation or aquatic life and commonly referred to as a bog, swamp, or marsh. Surface water is usually present all or some part of the year; however, wetlands may also be delineated by the type of soils and vegetation contained therein.

Wildfire: Uncontrolled fires occurring in forest land, brushland, and grassland.

Windrow: Slash, residue and debris raked together into piles or rows.